

In The Claims:

1-45. (canceled)

46. (currently amended) A halogen-free composite film comprising at least 3 to N sealable, multi-layered laminated films, wherein N is an integer from 4 to 10, each multi-layered laminated film comprising a first film, a second film and a laminating adhesive or lacquer between the first and second films, said multi-layered laminated films forming a stacked composite film sealingly engaging one side of a functional element.

47. (previously presented) A composite film according to claim 46 wherein the functional element is a printed circuit board, a sensor, a metallic stranded wire, a metallic conductor material, or an electronic component.

48. (previously presented) A composite film according to claim 46 wherein each of the sealable, multi-layered laminated films are identical to one another.

49. (previously presented) A composite film according to claim 46 wherein the second film of each laminated film comprises a thermally activated substance.

50. (previously presented) A composite film according to claim 46 wherein the first and the second film of each laminated film is selected from the group consisting of: liquid crystal polymer, polyphenylene sulfide, polyethylene terephthalate, polyethylene naphthalate, polyketone, polyetherketone, polyetheretherketone, polyetherketone-ketone, polyetheretherketoneketone,

polyetherimide, polyether sul-fone, polysulfone, cyclo-olefin copolymer, and polyamide films.

51. (previously presented) A composite film according to claim 46 wherein the laminating adhesive or lacquer is selected from the group consisting of: acrylates, polyurethanes, polyester polyols, polyester urethanes, epoxides, copolyesters or natural adhesive resins, which can be used as single-component or multi-component systems.

52. (previously presented) A composite film according to claim 50 wherein the laminating adhesive or lacquer is selected from the group consisting of: acrylates, polyurethanes, polyester polyols, polyester urethanes, epoxides, copolyesters or natural adhesive resins, which can be used as single-component or multi-component systems.

53. (previously presented) A composite film according to claim 46 wherein the wet application weight of the laminating adhesive is 2 g/m² to 40 g/m².

54. (previously presented) A composite film according to claim 49 wherein the thermally activated substance is selected from the group consisting of: cyclo-olefin copolymers, polyesters, polyurethanes, acrylates and derivatives thereof, vinyl acetate copolymers, polyvinyl alcohols, polyvinyl butyrals, polyvinyl acetates, sealable maleic resins, alkyd resins, polyolefins, polyamides and saturated, unsaturated, linear and branched copolyesters or multi-component polyurethane primer systems.

55. (previously presented) A composite film according to claim 46 wherein the first and second films of the individual laminated films each have a thickness between 10 μm and 100 μm .

56. (previously presented) A method for manufacturing a halogen-free composite film having at least 3 to N sealable, multi-layered laminated films, wherein N is an integer from 4 to 10, the method comprising:

producing each multi-layered laminated film by applying a laminating adhesive to a first film;

thereafter drying the first film in a drying tunnel at temperatures from approximately 80° C to 180° C;

joining a second film at the end of the drying tunnel to the first film; and
curing said laminating adhesive of said first film; and

thereafter providing a functional element between two of said at least 3 to N sealable, multi-layered laminated films; and

laminating said two multi-layered laminated films together to sealingly engage said functional element.

57. (previously presented) A method according to claim 56 further comprising coating the second film with a thermally activated substance.

58. (previously presented) A method according to claim 56 wherein the first and the second film of each laminated film is selected from the group consisting of: liquid crystal polymer, polyphenylene sulfide, polyethylene terephthalate, polyethylene naphthalate, polyketone, polyetherketone, polyetheretherketone, polyetherketone-ketone, polyetheretherketoneketone, polyetherimide, polyether sulfone, polysulfone, cyclo-olefin copolymer, and polyamide films.

59. (previously presented) A method according to claim 56 wherein the laminating adhesive is selected from the group consisting of: acrylates, polyurethanes, polyester polyols, polyester urethanes, epoxides, copolyesters or natural adhesive resins, which are used as single-component or multi-component systems.

60. (previously presented) A method according to claim 56 wherein the laminating adhesive is applied wet and the wet application weight of the laminating adhesive is 2 g/m² to 40 g/m².

61. (previously presented) A method according to claim 57 wherein the thermally activated substance is selected from the group consisting of: cyclo-olefin copolymers, polyesters, polyurethanes, acrylates and their derivatives, vinyl acetate copolymers, polyvinyl alcohols, polyvinyl butyrals, polyvinyl acetates, sealable maleic resins, alkyd resins, polyolefins, polyamides and saturated, unsaturated, linear and branched copolyesters or multi-component polyurethane primer systems.

62. (previously presented) A method according to claim 56 wherein the first and second films of the individual laminated films each have a thickness between 10 µm and 100 µm.

63. (previously presented) A method according to claim 56 wherein said functional element is an electrically conductive layer, and comprising vacuum depositing a metal layer between the first and second films.

64. (previously presented) A method according to claim 63 wherein the vacuum deposited metal layer is copper or aluminum.